



# Digital Transformation and Democracy in International Relations

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**Abstract** — The paper asks what digital transformation processes mean for the distribution of power in international relations. Different preconditions and strategies of relevant actors are taken into account. A focus is put on the position of the Global South in these processes, with special attention to Indonesia. Finally, an attempt will be made to determine the context in which digitization and the use of Artificial Intelligence (AI) take effect with regard to the ethical guidelines of "humanity" and "democracy".

**Keywords** — international relation, humanity, democracy

## I. INTRODUCTION

What is digital transformation? Digital transformation is the exponentially accelerated and in effect radical transformation of business activities, processes, competencies and models based on technology. This enables the rapid replacement of traditional business models. It is no longer just about evolutionary change, but increasingly about disruption.

Related to this, "agility" is the new magic word. Classic "change" models, in which one state is transferred to the next, are considered outdated. Transformation is becoming a permanent state.<sup>1</sup>

What is democracy in international relations? On a formal level, democracy in international relations exists through the sovereignty of states and their participation in organizations responsible for rule-making and functioning at a wide variety of levels and in a wide variety of areas.

At the same time, power struggles are constantly taking place to shape the rules that guide the international community. These power struggles are played out at different levels: bilateral, regional, international, global, within alliances and organizations, etc.

## II. WINNERS, LOSERS AND POWER DISTRIBUTION IN INTERNATIONAL RELATIONS

What is clear is that, as with all technological processes, there are winners and losers in the digital transformation. Who are the states that are winning? Which ones are losing?<sup>2</sup>

The traditional path of developing countries or emerging economies is to increase growth by increasing output and employment in export-oriented sectors of the economy. Will this model be undermined by AI-based robots? E.g. India and the Philippines are trying to expand by expanding their service sector. Will their call centers be replaced by AI-enabled chatbots?

The U.S. has a head start in developing large language models. They benefit from the close connection between business and universities. There is a lot of venture capital invested in this collaboration. It is no wonder that ChatGPT has come out of the Silicon Valley haze. The digital giants like Microsoft, Apple, etc. are not only the most valuable companies in the world. They have deep pockets. They can invest gigantic sums in further digitalization.<sup>3</sup>

China has very deep pockets, too. It spends a similar amount on research and development and digitization as the USA. There are also no restrictions due to competing priorities that could be enforced politically. In addition, there are few restrictions due to concerns about the privacy of data.

Europe is different again. This spring, the EU Commission presented a catalog of regulations for the use of AI.<sup>4</sup> The main focus here is on the use of private data in education, healthcare and human resources management by companies and public authorities.

So Europe has developed a different approach to AI than the U.S. or China. In the U.S., development in this area is more like the Wild West with few rules. In China, the approach is much less privacy-oriented and much less focused on the data

<sup>1</sup> There is now a vast amount of literature on this subject. As a brief introduction: Peter C. Verhoef, Thijs Broekhuizen, Yakov Bart, Abhi Bhattacharya, John Qi Dong, Nicolai Fabian, Michael Haenlein. "Digital transformation: A multidisciplinary reflection and research agenda." *Journal of Business Research*, Volume 122, January 2021, Pages 889-901 [1]. (<https://www.sciencedirect.com/science/article/pii/S0148296319305478>).

<sup>2</sup> Gurbuz, Mustafa. "Winners and Losers in the Digital Age: The Implications of Power Concentration on Global Political Economy." *Review of International Political Economy*, Vol. 26, No. 4, 2019, pp. 642-663. Arntz, Melanie, Terry Gregory, and Ulrich Zierahn. "The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis." *OECD Social, Employment and Migration Working Papers*, No. 189, 2016. [2]

<sup>3</sup> The White House: Fact Sheet: Biden-Harris Administration Announces

New Actions to Promote Responsible AI Innovation that Protects Americans' Rights and Safety. MAY 04, 2023 (<https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/04/fact-sheet-biden-harris-administration-announces-new-actions-to-promote-responsible-ai-innovation-that-protects-americans-rights-and-safety/>). National Research Council. "Preparing for the Future of Artificial Intelligence." The National Academies Press, 2018. National Artificial Intelligence Research and Development Strategic Plan. National Science and Technology Council, October 2016. [3][4]

<sup>4</sup> European Commission. "White Paper on Artificial Intelligence - A European approach to excellence and trust." European Commission, 19 February, 2020 ([https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020\\_en.pdf](https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf)). [5]

security of the individual.<sup>5</sup>

The European way does not have to mean a disadvantage in terms of development opportunities and economic success in the field of AI. A clearer set of rules makes it clear from the outset what is permitted and which developments should rather be avoided. This can lead European developers to be more compatible and build on each other's efforts in this field.

Developing countries are seemingly at a disadvantage in this race for the best technology and its use because they risk losing their competitive advantage, namely abundant labor at low cost.<sup>6</sup> But that's just one side of the coin. For example, companies like Apollo Agriculture are using agronomic learning engines and satellite imagery to provide small farmers in Kenya with information on best farming practices and procedures.

AI can also be used to provide a simplified payment and credit system that makes small business owners less dependent on banks and thus financial restrictions.

### III. ECONOMY, HUMAN CAPITAL, AI AND THE COMMON GOOD

Economic development is highly dependent on human development anyway. Human capital is the most important capital. AI can at least partially compensate for disadvantages of developing countries that do not have so many resources to improve their education system. This is because AI can be used to develop and implement customized learning programs where there is a shortage of teachers.<sup>7</sup> Beyond the education and agriculture sectors, AI can also have a positive impact in other areas of the economy, healthcare, sanitation, and emergency response in developing countries.

Above all, it must be remembered that human development and democracy cannot simply be measured in terms of economic growth, especially in these times of climate change and heightened tensions between major powers. There is an increasingly urgent question of where economic development should go, how we maintain the foundations of our human existence, and what we are educated and trained to do.<sup>8</sup> In this sense, questions of the common good are more important than ever at the local, national, regional and global levels. These questions can only be answered politically and are ideally answered democratically.

This is not just a question of national democracy, but also of global development and rule-making. In other words, it is

also about democracy in international relations and the use of modern technology, digitization and AI for general developments that affect all of humanity.

There is a power imbalance in international relations that does not balance itself. Regional actors such as ASEAN and actors in the Global South, who have similar structural conditions, can and must come to an understanding and introduce common objectives into international organizations and sets of rules if they want to be taken into account.

### IV. DIGITIZATION AND INDONESIA IN REGIONAL AND INTERNATIONAL CONTEXTS

Indonesia has held a prominent position in ASEAN since its founding in 1967 due to its territorial, demographic, economic, and political importance. As is well known, the General Secretariat of ASEAN is located in Jakarta. Indonesia is a member of the United Nations and has been a non-permanent member of the Security Council on several occasions. Indonesia has held the presidency of the UN ECOSOC on several occasions. Indonesia is a member of the G20 and hosted the 2022 G20 meeting in Bali. Indonesia is considered by many countries of the Global South as their voice in the G20. Indonesia is a member of the International Monetary Fund and the World Trade Organization. Issues of digitalization and what effects they have in different regional and social contexts are playing an increasingly important role in all of these organizations.

It is no longer just about economic development and growth, but - as the title of the conference quite rightly states - about democracy and social transformation. Both are more endangered by the "transformation as a permanent condition" that digitization signifies than in earlier times.<sup>9</sup>

This is not an entirely new process. But it is accelerating. Indonesia and other parts of the world have managed in the past to harness technology for their own development and to improve people's life chances. The increase in life expectancy is one indicator of this. The better educated we are, the better we understand technical and social processes, the more we know about communication systems, the more we reflect on what common good means today at different levels, the better we will be able to use digitization and AI productively and not destructively.<sup>10</sup> Education is no guarantee for avoiding mistakes and developing the right strategies. The interplay of diverse factors is necessary for this. But the higher the general level of education, the greater the chances of success.

<sup>5</sup> Lampoltshammer, Thomas J., et al. "Towards European AI Policy: The Role of Ethics and Fundamental Rights." *AI and Ethics*, Vol. 1, No. 1, 2021, pp. 57-67. [6]

<sup>6</sup> Joyjit Chatterjee, Nina Dethlefs. „Developing countries are being left behind in the AI race - and that's a problem for all of us.“ *THE CONVERSATION*, April 13, 2022 [7]

(<https://theconversation.com/developing-countries-are-being-left-behind-in-the-ai-race-and-thats-a-problem-for-all-of-us-180218>). Cristian Alonso, Siddharth Kothari, Sidra Rehman Cristian Alonso, Siddharth Kothan, Sidra Rehman. [8]

„How Artificial Intelligence Could Widen the Gap Between Rich and Poor Nations.“ *IMF BLOG*, December 2, 2020 (<https://www.imf.org/en/Blogs/Articles/2020/12/02/blog-how-artificial-intelligence-could-widen-the-gap-between-rich-and-poor-nations>). Yigitcanlar, Tan, and Daniel Bunker. "Addressing the Digital Divide: Digital Technologies and Developing Countries." *Information Technology for Development*, Vol. 25, No. 1, 2019, pp. 1-8. Mutula, Stephen M., and

Anthony O. Olumide. "Implications of the Fourth Industrial Revolution (4IR) on Developing Countries: A Systematic Literature Review." *Information Technology for Development*, Vol. 26, No. 1, 2020, pp. 1-36. [9]

<sup>7</sup> Pedró, Francesc, Subosa, Miguel, Rivas, Axel, Valverde, Paula. „Artificial intelligence in education: challenges and opportunities for sustainable development.“ *UNESCO, Education Sector*, 2019 (<https://unesdoc.unesco.org/ark:/48223/pf0000366994>). [10][11]

<sup>8</sup> Chib, Arul, et al. "The Mobile Revolution - Rethinking Development and Inclusive Innovation." *Journal of International Development*, Vol. 32, No. 6, 2020, pp. 867-884. [12]

<sup>9</sup> Zuboff, Shoshana. "The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power." *Harvard Business School, Public Affairs*, 2019 (<https://www.hbs.edu/faculty/Pages/item.aspx?num=56791>). [13]

<sup>10</sup> Taylor, Linnet, et al. "Governing AI: Understanding the Limits, Possibilities, and Risks of AI in an Era of Intelligent Tools and Systems." *Harvard Kennedy School*, 2018. [15]

## REFERENCES

- [1] There is now a vast amount of literature on this subject. As a brief introduction: Peter C. Verhoef, Thijs Broekhuizen, Yakov Bart, Abhi Bhattacharya, John Qi Dong, Nicolai Fabian, Michael Haenlein. "Digital transformation: A multidisciplinary reflection and research agenda" *Journal of Business Research*, Volume 122, January 2021, Pages 889-901 (<https://www.sciencedirect.com/science/article/pii/S0148296319305478>).
- [2] Gurbuz, Mustafa. "Winners and Losers in the Digital Age: The Implications of Power Concentration on Global Political Economy." *Review of International Political Economy*, Vol. 26, No. 4, 2019, pp. 642-663. Arntz, Melanie, Terry Gregory, and Ulrich Zierahn. "The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis." *OECD Social, Employment and Migration Working Papers*, No. 189, 2016.
- [3] The White House: Fact Sheet: Biden-Harris Administration Announces New Actions to Promote Responsible AI Innovation that Protects Americans' Rights and Safety. MAY 04, 2023
- [4] (<https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/04/fact-sheet-biden-harris-administration-announces-new-actions-to-promote-responsible-ai-innovation-that-protects-americans-rights-and-safety/>). National Research Council. "Preparing for the Future of Artificial Intelligence." The National Academies Press, 2018. National Artificial Intelligence Research and Development Strategic Plan. National Science and Technology Council, October 2016.
- [5] European Commission. "White Paper on Artificial Intelligence - A European approach to excellence and trust." European Commission, 19 February, 2020 ([https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020\\_en.pdf](https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf)).
- [6] Lampoltshammer, Thomas J., et al. "Towards European AI Policy: The Role of Ethics and Fundamental Rights." *AI and Ethics*, Vol. 1, No. 1, 2021, pp. 57-67.
- [7] Joyjit Chatterjee, Nina Dethlefs. „Developing countries are being left behind in the AI race - and that's a problem for all of us.“ *THE CONVERSATION*, April 13, 2022
- [8] (<https://theconversation.com/developing-countries-are-being-left-behind-in-the-ai-race-and-thats-a-problem-for-all-of-us-180218>). Cristian Alonso, Siddharth Kothari, Sidra Rehman Cristian Alonso, Siddharth Kothan, Sidra Rehman. „How Artificial Intelligence Could Widen the Gap Between Rich and Poor Nations.“ *IMF BLOG*, December 2, 2020
- [9] (<https://www.imf.org/en/Blogs/Articles/2020/12/02/blog-how-artificial-intelligence-could-widen-the-gap-between-rich-and-poor-nations>). Yigitcanlar, Tan, and Daniel Bunker. "Addressing the Digital Divide: Digital Technologies and Developing Countries." *Information Technology for Development*, Vol. 25, No. 1, 2019, pp. 1-8. Mutula, Stephen M., and Anthony O. Olumide. "Implications of the Fourth Industrial Revolution (4IR) on Developing Countries: A Systematic Literature Review." *Information Technology for Development*, Vol. 26, No. 1, 2020, pp. 1-36.
- [10] Pedró, Francesc, Subosa, Miguel, Rivas, Axel, Valverde, Paula. "Artificial intelligence in education: challenges and opportunities for sustainable development"
- [11] UNESCO, Education Sector, 2019 (<https://unesdoc.unesco.org/ark:/48223/pf0000366994>).
- [12] Chib, Arul, et al. "The Mobile Revolution - Rethinking Development and Inclusive Innovation." *Journal of International Development*, Vol. 32, No. 6, 2020, pp. 867-884.
- [13] Zuboff, Shoshana. "The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power." Harvard Business School, Public Affairs, 2019 (<https://www.hbs.edu/faculty/Pages/item.aspx?num=56791>).
- [14] O'Neil, Cathy. "Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy." Crown, 2016. Taddeo, Mariarosaria, and Luciano Floridi. "How AI Can Be a Force for Good." *Science*, Vol. 361, No. 6404, 2018, pp. 751-752.
- [15] Taylor, Linnet, et al. "Governing AI: Understanding the Limits, Possibilities, and Risks of AI in an Era of Intelligent Tools and Systems." Harvard Kennedy School, 2018. O'Neil, Cathy. "Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy." Crown, 2016. Taddeo, Mariarosaria, and Luciano Floridi. "How AI Can Be a Force for Good." *Science*, Vol. 361, No. 6404, 2018, pp. 751-752.

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